

- DRAFT -  
REPORT OUTLINE

2-5-88 DS W  
Client review  
Mr. Suzuki & Ota

ZNTT/2-3-88

Analysis of the U.S. Commercial Systems Integration  
(CSI) Market for NIPPON Telegraph and Telephone

Source Date

I. Introduction

- A. Audience and Purpose
- B. Scope
- C. Methodology

II. Executive Summary

- A. Purpose
- B. Findings
  - 1. CSI Market Forecast
  - 2. Competitive Environment
  - 3. Success Factors
- C. NTT Penetration Strategy Recommendations
  - 1. Market Targets
  - 2. Sales Strategy
  - 3. Strategic Alliances / Acquisitions
  - 4. Resources and Investment Required

III. CSI Market Assessment

- A. Market History, Evolution and Structure
- B. Findings
  - 1. User Perspective
  - 2. Vendor Perspective
- C. Unattractive Characteristics
- D. Future Evolution

also as a

Separate  
document



(2 hrs)  
(can be same as presentation)  
style: build up to punch line at end  
in presentation, describe  
only one or two ST's

(but small CSI,  
eg network mgmt &  
system integrators)



10  
- 88 forecast ok? NO

E. Market Forecast (1987-1996)

1. Forecast by CSI Component

- a. Hardware
- b. Software Products
- c. Professional Services
- d. Other Expenditures
- e. Markups & Administration Fees

2. Forecast by Industry

- a. Discrete Manufacturing
- b. Banking/Finance
- c. Distribution
- d. State and Local Government
- e. Insurance
- f. Utilities
- g. Telecommunications
- h. Process Manufacturing
- i. Medical
- j. Services
- k. Other

IV. Customer Buying Process for Integrated Systems

- A. Where CSI Projects Come From
- B. Developing the Request For Proposal (RFP)
- C. Managing the Bidding Process
- D. Proposed Evaluations and Selection Criteria
- E. Managing the CSI Implementation (Life After the Award)

F. Use of Outside consultants



## V. CSI Competitive Environment

Covering the following eleven vendors:

- IBM (Nalheis, SAA impacts)
- Arthur Andersen
- Electronic Data Systems
- AT&T (private net = approach to system integration big)  
ISDN works an advantage
- Digital Equipment Corporation
- Computer Science Corporation (content below, info net, govt SI)
- Boeing ECS (unreliable SI, Comm in very weak)
- Martin Marietta (has approached NTT to expand from  
ISD into comm bus)
- Unisys | SDC (most aggressive in SI  
US 11/62 track of  
cases consist of  
eg B in 5 yrs)
- Pacific Telesis NYNEX or most aggressive in SI  
consider substitute)
- General Telephone and Electronics (consider substitute)  
eg TRW ek

### A. Major Vendor Profiles (for each company)

1. Description of Principal Business
2. CSI Business Objective
3. CSI Market Strategy
  - 3.1 Market Targets
  - 3.2 Positioning/Uniqueness
4. Financial Summary
  - 4.1 Total Revenues
  - 4.2 Total Capital (Net Worth)
  - 4.3 Profitability

### B. Customer Base and Market Share Analysis

1. 1987 Market Shares by Vendor
2. Number of Contracts and Customer Base Description
3. Average \$ Value

Keep track of  
"2nd tier vendors"  
as S/A or org candidates  
for NTT

CIC

CTC

SHL

Using ?  
Center / MATH Division org

Unreliable / ADK - govt only

Vendors Mkt share  
By company

Specialized Capability Forward  
B. Customer Base and Market Share Analysis

plus a table  
do more all  
w/ tables



4. Win Ratio on Contract Bids
5. Reasons for Wins and Losses

STET  
B.C.

#### CSI Vendor Capabilities

##### Capabilities Addressed Are:

- Software Development (Application v. System Software)
- Information Systems Hardware
- Design/Integration
- Communications Hardware
- Consulting
- Project Management
- Application Software Packages
- System Software Packages
- Education, Training & Documentation
- Installation
- Network Management
- Service and Repair (Fault Management)
- Other

#### 1. Evaluate Each Vendor's Strengths and Weaknesses Regarding:

- 1.1 Internal Capabilities
- 1.2 Strategic Alliances
- 1.3 Other CSI Relationships

#### 2. Resources Committed to CSI

- 2.1 Number of People by Capability Area
- 2.2 Funding Levels
- 2.3 Other Commitment Measures

very  
mostly action

get from  
other vendors?  
or users

} important to list  
smaller cost is req. complete  
priorities are:  
o protocol  
conversion  
o Network  
mgmt





## D. Specialized Capability Providers (small acc candidates)

### E. External (User) Perceptions of CSI Vendors (random potential user list)

1. Awareness and Specific Image
2. Track Record
3. Skill Base
4. Proprietary Capability
5. Marketing & Sales Skills

### F. Evaluation of Other Success Factors

1. Industry Breadth
2. Advanced Technical Expertise
3. International Presence
4. Leveraging Government CSI Experience

### G. Software Development Approach in CSI Projects

1. Process and Methodology
2. Special Tools

### H. CSI Marketing Strategy and Evaluation (Vis-a-vis Above Capabilities and Competitive Considerations)

1. Market Targets & Priorities (Verticals, Functional?)
2. Positioning: Benefits Emphasized, CSI Skill Emphasis, Competitive Differentiation, Importance of Flexibility v. Fixed Solutions)
3. Sales Approach (Including 3rd Party Influencers)
4. Promotion Approach
5. Bidding Strategy (Sample Proposals \*)
6. Pricing Guidelines Regarding Hardware and Software

(1) don't miss your old relationships  
(2) IBM they caught selling cheaper than to EDS than NTT in Japan

## VI. NTT CSI Strategy Recommendations

1. Summary of Opportunities Identified in Above Market Analysis and Competitive Environment Sections.

\* Very Difficult to Obtain - Best Efforts Basis



2. NTT Strategy Alternatives
3. Recommendations for NTT

(1) to learn something  
(2) Develop strategic alliances

what kind of  
relationships  
w/ how vendors  
will be best for NTT

- 3.1 Supporting CSI Business Objectives
- 3.2 Market Target Priorities
- 3.3 Capabilities Emphasis
- 3.4 Sales Strategy
- 3.5 Potential Strategic Alliances
- 3.6 Resources and Investment Required

and/or Acquisition & reasons why

including  
procurement arrangements  
& discount policies to expect in general

#### Appendix

- A. Definitions
- B. CSI Vendor Information (Detail)
- C. Questionnaire

D. 2nd Tier Company Profiles (from CAMP)

part of NTT



[illegible]

5 = Strong, 4 = Good, 3 = Average, 2 = Fair, 1 = Weak

## INPUT



CSI Capability	IBM	DEC	Unisys	AT&T	AA&Co.	EDS	CSC	BCS	MMDS	CTG	SHL
Consulting											
Design/Integration											
Project Management											
IS Hardware											
Communication Hdwe											
Software Development											
Pkg. Applic. Sftwr											
Pkg. System Sftwr											
Educ. Tng. & Doc.											
Network Mgmt.											
Service & Repair											
Totals											

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### CSI Capability

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Educ. Tng. & Doc.											
Network Mgmt.											
Service & Repair											
Totals											

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## SI CAPABILITIES TABLE

\_\_\_\_\_  
(Vendor Name)

Capability	Internal (yes/no)	Strategic Alliance	Comments
1. Software Development - systems - application			
2. IS Hardware			
3. Design/Integration			
4. Communications Hardware			
5. Consulting			
6. Project Management			
7. Packaged Applic Software			
8. Packaged System Software			
9. Education, Training, Docum			
10. Installation			
11. Network Mgmt			
12. Service & Repair			
13. Other			



\_\_\_\_\_  
(Vendor Name)

## SI CAPABILITIES TABLE

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9. Education, Training, Docum				
10. Installation				
11. Network Mgmt				
12. Service & Repair				
13. Other				



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	IBM	DEC	Unisys	AT&T	AA&Co.	EDS	CSC	BCS	MMDS	CTG	SHL
Annual Report 87		✓	86			86	✓	✓	✓	✓	✓
10K							✓				✓
Relevant Brochures (Computer/CSI activities)							✓				✓
				✓	✓	✓					
			one copy only								
Totals											

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INPUT





Forward

## Key Industry Alliances by Professional Services Firm, con't

PROFESSIONAL SERVICE GROUP	VENDOR	PRODUCTS	AGREEMENT
COMPUTER HORIZONS CORP.	BELL ATLANTIC	DB2 Data Dictionary	Co-development, marketing
COMPUTER SCIENCES CORP.	AION COMMUNICATIONS APPLIX AT&T FEDERAL SYSTEMS BRITISH TELECOM DIGITAL EQUIPMENT CORP. IBM PANSOPHC QUOTRON	Packet switches Office Automation Software Telecommunications Products Telecommunications Products Hardware Products Hardware Products Beta test site Co-marketing agreement	Marketing Agreement Co-development, marketing Team bidding Arrangement Team bidding Arrangement Team Bidding Arrangement Beta test site Co-marketing agreement
COMPUTER TASK GROUP	AION CORP. CONTRANS HEWLETT PACKARD IBM IBM RELATIONAL TECHNOLOGIES INC. TRANSFORM LOGIC	Expert Systems Products CORTEX Hardware products Hardware products DB2 Ingress Transform	Co-Marketing Agreement Marketing Agreement Systems Integrator Commercial Systems Integrator Industry Marketing Assistance Program Co-Marketing Agreement
CONTROL DATA CORP.	AT&T	Ready Access Protocol Converter/ AT&T Account Packet Service	Co-marketing
COOPERS & LYBRAND	HEWLETT PACKARD TANDEM COMPUTERS UNICORN SYSTEMS	Hardware Products Hardware and software products MicroCICS	Solution Partner Co-development and marketing Co-marketing agreement
DELOITTE HASKINS & SELLS	COMPUTER ASSOCIATES INT. HOLLAND SYSTEMS LOCKWOOD GREENE STATE OF THE ART	ACCPAC Product Line Tactical and Strategic Systems Planning Tools Engineering and Architectural Services MAS 90	Preferred Installer Joint Venture Co-marketing Agreement Preferred Installer
DMR GROUP	CLEVELAND CONSULTING ASSOC. INDEX TECHNOLOGY SDI INDUSTRIES STRATUS COMPUTER	Retail Systems Design Services Excelsior Sortation Hardware Hardware Products	Co-marketing Agreement Co-marketing Agreement Co-marketing Agreement
ELECTRONIC DATA SYSTEMS	ING. C. OLIVETTI & CO. INTEL CORP.	PC Products Speech Workstations	Joint venture Co-development and marketing
ERNST & WHINNEY	COMPUTER ASSOCIATES INTERNATIONAL	ACCPAC	Preferred Installer
GE CONSULTING SERVICES	IBM	DB2	Industry Marketing Assistance Program
GRUMMAN DATA SYSTEMS	CRAY DIGITAL EQUIPMENT CORP. IBM WANG LABORATORIES	Hardware Products Hardware Products Hardware Products Hardware Products	Informal Marketing Arrangement Informal Marketing Arrangement Informal Marketing Arrangement Informal Marketing Arrangement
LAVENTHOL & HORWATH	BUSINESSLAND, INC. COMPUTER ASSOCIATES INTERNATIONAL	Hardware and software products ACCPAC	Co-marketing agreement Value-added reseller
LOS CONSULTANTS	TOMLIN, INC.	MACH 1	Marketing Agreement
MCDONNELL DOUGLAS FEDERAL SYSTEMS DIVISION	TANDEM COMPUTERS	Hardware Products	Team Bidding Arrangement
PEAT MARWICK MAIN & CO.	COMPUTER ASSOCIATES INTERNATIONAL MANAGEMENT SCIENCE AMERICA MCCORMACK & DODGE	Software International Product Line Financial Software Products Financial Software Products	Preferred Installer Preferred Installer Preferred Installer
PRICE WATERHOUSE	INDEX TECHNOLOGY KAWASAKI HEAVY INDUSTRIES MANAGEMENT SCIENCE AMERICA MCCORMACK & DODGE MCCORMACK & DODGE	Excelsior Kawasaki Production System Financial Software Products Productivity & Inventory Optimization System Financial Software Products	Beta test site Authorized Licensee Training and demonstration agreement Extended Service Provider Training and demonstration agreement Beta test site
SEIDMAN & SEIDMAN	PANSOPHC MCDONNELL DOUGLAS	Talon Airport Management System	Co-development and marketing
BHL SYSTEMS/HOUSE	APPLIED DATA RESEARCH CGOGRIS DIGITAL EQUIPMENT CORP. IBM NORTHERN TELECOM ORACLE RELATIONAL TECHNOLOGIES TANDEM	Database Management Products PowerHouse Hardware Products Hardware Products Telecommunications products Oracle Ingress Hardware and software products	Marketing Agreement Marketing Agreement OEM Marketing Assistance Program Marketing Agreement Marketing Agreement Marketing Agreement Solutions Implementor
TELOS CORP.	APPLE COMPUTER CINCOM SYSTEMS	Software Product Database and applications software	Co-development Implementation support/ Co-marketing agreement
TOUCHE ROSS	COMPUTER ASSOCIATES INTERNATIONAL	ACCPAC	Preferred Installer

## Specialty Firms Alliance Targets

—from page 9

tronics manufacturing. CACI, meanwhile, has become third-party marketer for Tandem Computers in the insurance and retail sectors. "We're a strong house for 'tandem,'" reported Topping. "Our relationship goes well beyond OEM."

In the retail sector, CACI has experience in distribution systems and warehouse automation. Access to Tandem's Store-Link point-of-sale software product allows CACI to offer both back-end and front-end automation to the retail sector, Topping said. "We want to build a vertical capability."

Montreal-based DMR Group has also entered relationships with retail industry firms. According to Al Silver, DMR principal responsible for the company's retail practice, the firm has struck an agreement with SDI Industries, North-Hollywood, Calif. SDI manufactures sortation devices for distribution centers. Under the SDI alliance, DMR develops software to control the sortation devices.

DMR is also aligned with Cleveland Consulting Assoc. (CCA), a firm that specializes in retail industry planning. The two firms recently collaborated on a project with Zellers, a Montreal-based retail chain. CCA drafted the system requirements document and DMR created the system to support the requirements.

The financial services sector is prime ground for alliance activity. DMR is working with Stratus Computer in the financial services industry under a complementary marketing agreement. The firms are currently teaming on projects with two financial services clients, Bank of Boston and Nashua, NH-based Direct Marketing Guaranty Trust.

DMR's role on joint projects usually involves the development of custom software or the modification of packaged products. In the Bank of Boston's case, DMR was called in to provide enhancements for a Stratus-based cash management system. The bank was implementing and becoming a beta site for Forte, a product marketed by Advantage Systems of Waltham, Mass.

"One of the things the bank discovered was that the package was very good but didn't integrate with the existing banking system," said Ray Falkner, DMR's managing director in charge of firm's Boston office. "Stratus requested that DMR come in and modify the package so it could interface. That work has continued and we've in fact made some internal enhancements to Forte."

"We see ourselves getting into more opportunities, since the number of people who know the (Stratus) equipment remains low," Falkner said. "We intend to be one of the key firms that customers can turn to when they require software support services."

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## SI Capability Definitions

1. **Consulting Services** – Project front-end feasibility studies, and/or hardware software, network technology selection and trade off studies.
2. **Design/Integration** – System design, installation, and testing.
3. **Project Management** – Overall responsibility for project planning, implementation vendor and user interface.
4. **Information Systems Hardware** – Processing CPUs, storage and related peripherals used in a SI project (mainframes, minis, micros)
5. **Communications Hardware** – Communications devices, e.g., controllers, switches, multiplexers, network control systems, PBXs.
6. **Software Development** – Custom software design, coding and testing.
7. **Package Application Software** – Vendor provided off the shelf generic software solution to a given application requirement.
8. **Packaged System Software** – Vendor provided off the shelf generic software solution to a system requirement.
9. **Education, Training & Documentation** – Training given to the user to make some combination of the use, operation, and maintenance of a system possible by that user.
10. **Network Management** – The ongoing operation, monitoring, and control of a communications network as a facility management service.
11. **Service & Repair** – Services that fix operational problems in hardware, software and any special facilities/equipment.
12. **Other** – Specialized systems required by, and unique to, the SI project application. For example, an energy management system for a power utility will have special controls and switches (using computer hardware & software) provided by suppliers not normally associated with the data processing business.



## COMMERCIAL SYSTEMS INTEGRATOR ALLIANCES

[illegible]

